

Title (en)
CROSS-LINKED NITRIC OXIDE-RELEASING POLYAMINE COATED SUBSTRATES, COMPOSITIONS COMPRISING SAME AND METHOD OF MAKING SAME

Title (de)
VERNETZTE STICKSTOFFOXID FREISETZENDE POLYAMINBESCHICHTETE SUBSTRATE, DIESE ENTHALTENDEN ZUSAMMENSETZUNGEN UND HERSTELLUNGSVERFAHREN DAF R

Title (fr)
SUBSTRATS RETICULES ENDUITS DE POLYAMINE A LIBERATION D'OXYDE NITRIQUE, COMPOSITIONS CONTENANT CES SUBSTANCE S ET METHODE DE PRODUCTION ASSOCIEE

Publication
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Application
EP 03741911 A 20030611

Priority

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Abstract (en)
[origin: WO2004012874A1] The invention provides a method for preparing a nitric oxide-releasing medical device. The method includes contacting an amine-functionalized silane residue with a substrate, e.g., a metallic substrate, contacting the amine-functionalized silane residue with a cross-linking agent, contacting at least one nucleophilic residue with the crosslinked amine-functionalized silane residue, and contacting the nucleophilic residue with nitric oxide gas. The invention also provides a method of contacting the cross-linked amine-functionalized silane residue with at least one nitric oxide-releasing functional group. Furthermore, the invention provides a medical device for delivering nitric oxide in therapeutic a concentration, wherein the device comprises a substrate having nitric oxide bound thereto through diazeniumdiolated nucleophiles bonded to silane intermediates. The silane intermediates are bonded to the substrate and are amine-functionalized and crosslinked.

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Citation (search report)

- [X] WO 0243786 A2 20020606 - MEDTRONIC AVE INC [US], et al
- [X] US 6270779 B1 20010807 - FITZHUGH ANTHONY L [US], et al
- [PL] WO 03026717 A1 20030403 - US GOV HEALTH & HUMAN SERV [US], et al

Citation (examination)

- US 6218016 B1 20010417 - TEDESCHI EUGENE [US], et al
- WO 9901427 A2 19990114 - US HEALTH [US], et al

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